Department of Commerce • National Oceanic & Atmospheric Administration • National Weather Service

NATIONAL WEATHER SERVICE WESTERN REGION SUPPLEMENT 6-2004
APPLICABLE TO INSTRUCTION NWSI 10-320
OCTOBER 17, 2005

Operations and Services
Marine and Coastal Weather Services, NWSPD 10-3
Coastal/Lakeshore Flood Services, NWSI 10-320

HIGH SURF ADVISORIES AND COASTAL FLOOD WARNINGS

NOTICE: This publication is available at: http://www.nws.noaa.gov/directives/.

OPR: W/WR1x4 (J. Lorens) **Certified by:** W/WR1 R. Douglas
Type of Issuance: Routine

SUMMARY OF REVISIONS: This directive supersedes NWS Western Region Supplement 6-2004 dated July 31, 2004.

The following changes were made in this issuance:

1. Added information on "Coastal Flood Advisories".
2. Added information on "High Surf Warnings".
3. Added "High Surf Warning Criteria" (to Appendix A).
4. Added "High Surf Warning" example (to Appendix B).

Signed 09/28/05
Vickie Nadolski Date
Director, Western Region

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1. Introduction. This regional supplement provides additional guidance and instructions for Western Region (WR) Weather Forecast Offices (WFOs) regarding coastal flood advisories/ warnings and high surf advisories/warnings. Written instructions cannot address every situation. Operational personnel must exercise initiative and professional judgment to minimize risk to public safety and property in instances when written instructions do not provide appropriate guidance. Personnel must balance safety and needs of customers against frequency of advisories or warnings and possible constraint of travel and commerce. Protection of life and property will take precedence in these decision-making processes.

2. Coastal Flood Warnings. Refer to NWSI 10-320 for general guidance and procedures concerning Coastal Flood Watches, Warnings, and Statements. NWSI 10-320 also provides examples of these products.

2.1 Coastal Flood Advisories. A "Coastal Flood Advisory" informs customers that minor coastal flooding (not resulting in significant damage), such as that associated with abnormally high astronomical tides, or a combination of wind and high tide, is occurring or possible in the first forecast period. WFOs may also issue Coastal Flood Advisories for the second or third forecast periods when confidence is high or when advance notice is needed to meet customer requirements. See NWSI 10-320, Appendix B for an example Coastal Flood Advisory.

3. High Surf Warnings and Advisories. WFOs will use the "Coastal Hazard Message" (PIL: CFW) to issue High Surf Advisories and Warnings. High Surf Advisories/Warnings may be segmented to meet local needs for specific high surf information.

3.1 High Surf Advisories. See NWSI 10-320 for information on High Surf Advisories.

3.2 High Surf Warnings. "High Surf Warnings" should be issued when an especially heightened threat to life and/or property exists or is expected. High Surf Warnings are not issued by WFOs San Diego or Los Angeles/Oxnard.

3.3 High Surf Advisory/Warning Criteria. Criteria for High Surf Warnings exceeds that for High Surf Advisories. WR criteria for High Surf Advisories and Warnings are defined according to local customer requirements. Criteria for each WR WFO are listed in Appendix A. WFOs will notify WR Meteorological Services Division (MSD) if these criteria change.

3.4 Valid time periods for issuance and effective duration. WFOs should issue High Surf Advisories/Warnings when criteria is expected to be met or exceeded during the first through third forecast periods, and valid for the expected duration.

APPENDIX A - NWS Western Region High Surf Advisory/Warning Criteria

WFO	High Surf Advisory	High Surf Warning
Seattle	Significant Wave Height ≥20 FT (except ≥ 15 FT during summer and first event in Fall)	Significant Wave Height ≥25 FT
Portland	Swell energy flux ≥100 X 10^4 j/ms(1)	Swell energy flux ≥160 X 10^4 j/ms(2)
Medford	Significant Wave Height ≥20 FT	Significant Wave Height ≥25 FT
Eureka	Significant Wave Height ≥18 FT	Significant Wave Height ≥24 FT
Monterey/San Francisco Bay Area	Significant Wave Height ≥15 FT	Significant Wave Height ≥20 FT
Los Angeles/Oxnard	Significant Wave Height North of Point Conception: ≥10 FT South of Point Conception: ≥7 FT	Not issued
San Diego	Significant Wave Height ≥7 FT	Not issued

Notes:
"Swell energy flux" (also know as "wave power") is the average energy per unit time, per unit wave width, transmitted in the direction of wave propagation. For the values listed here:

(1) Approximate corresponding swell height range: 17-23 feet.
(2) Approximate corresponding swell height range: 22-28 feet.

APPENDIX B - Example High Surf Products

Example High Surf Advisory:

FZUS68 KMFR 081640
CFWMFR

COASTAL HAZARD MESSAGE
NATIONAL WEATHER SERVICE MEDFORD OR
938 AM PDT FRI APR 8 2006

ORZ021-082300-
/O.NEW.KMFR.SU.Y.0005.060408T1640Z-060409T0900Z
SOUTH CENTRAL OREGON COAST-
INCLUDING THE CITIES OF...COOS BAY...COQUILLE...PORT ORFORD...
POWERS...REEDSPORT
938 AM PDT FRI APR 8 2006

...HIGH SURF ADVISORY IN EFFECT THROUGH TONIGHT...

DEEPENING LOW PRESSURE APPROACHING THE NORTHERN OREGON COAST WILL GENERATE BUILDING SEAS ALONG THE SOUTHERN OREGON COAST. SEAS ARE EXPECTED TO RISE FROM AROUND 14 FEET TO A PEAK AROUND 20 FEET BY 10 PM THIS EVENING. THE HIGHEST SEAS WILL NEARLY COINCIDE WITH HIGH TIDE WHICH WILL OCCUR AT APPROXIMATELY 1230 AM. SEAS WILL GRADUALLY LOWER LATE TONIGHT...AND CONTINUE TO DIMINISH TO AROUND 12 FEET BY SATURDAY AFTERNOON.

STAY TUNED TO NOAA WEATHER RADIO...COMMERCIAL RADIO OR TELEVISION STATIONS...OR YOUR CABLE TELEVISION PROVIDER FOR THE LATEST IN WEATHER INFORMATION.

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ORZ022-082300-
/O.NEW.KMFR.SU.Y.0005.060408T1640Z-060409T0900Z
CURRY COUNTY COAST-
INCLUDING THE CITIES OF...BROOKINGS...GOLD BEACH
938 AM PDT FRI APR 8 2006

...HIGH SURF ADVISORY IN EFFECT THROUGH TONIGHT...

DEEPENING LOW PRESSURE APPROACHING THE NORTHERN OREGON COAST WILL GENERATE BUILDING SEAS ALONG THE SOUTHERN OREGON COAST. SEAS ARE EXPECTED TO RISE FROM AROUND 14 FEET TO A PEAK AROUND 24 FEET BY

11 PM THIS EVENING. THE HIGHEST SEAS WILL NEARLY COINCIDE WITH HIGH TIDE WHICH WILL OCCUR AT APPROXIMATELY 1230 AM. SEAS WILL GRADUALLY LOWER LATE TONIGHT...AND CONTINUE TO DIMINISH TO AROUND 12 FEET BY LATE SATURDAY AFTERNOON.

STAY TUNED TO NOAA WEATHER RADIO...COMMERCIAL RADIO OR TELEVISION STATIONS...OR YOUR CABLE TELEVISION PROVIDER FOR THE LATEST IN WEATHER INFORMATION.

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Example High Surf Warning:

WHUS46 KEKA 141507
CFWEKA

COASTAL HAZARD MESSAGE
NATIONAL WEATHER SERVICE EUREKA CA
810 AM PDT FRI JAN 14 2006

CAZ001-CAZ002-142200-
/O.NEW.KEKA.SU.W.0007.060114T1507Z-060114T2300Z
REDWOOD COAST CA-MENDOCINO COAST CA-

...HIGH SURF WARNING IN EFFECT UNTIL 300 PM PDT THIS AFTERNOON...

THE NATIONAL WEATHER SERVICE IN EUREKA CA HAS ISSUED A HIGH SURF WARNING.

A VERY STRONG STORM SYSTEM IN THE EAST PACIFIC HAS GENERATED DANGEROUSLY LARGE SWELL THAT WILL IMPACT THE NORTHERN CALIFORNIA COAST TODAY. COMBINED SEAS WILL PEAK AT 25 TO 30 FEET LATE THIS MORNING INTO THE EARLY AFTERNOON. THE SWELL IS EXPECTED TO SUBSIDE BELOW 20 FEET TONIGHT.

BEACHES...JETTIES...ROCKS...AND PIERS ON EXPOSED COASTLINE WILL BE DANGEROUS TODAY. LARGE WAVES CONTAIN TREMENDOUS FORCE AND CAN SWEEP INDIVIDUALS INTO THE FRIGID AND TURBULENT WATERS. PERSONS ARE ADVISED TO REMAIN AWAY FROM THESE AREAS UNTIL THE WAVES SUBSIDE.

STAY TUNED TO NOAA WEATHER RADIO AND OTHER LOCAL MEDIA FOR FURTHER DETAILS OR UPDATES.

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